

SCHWEGMAN ■ LUNDBERG ■ WOESSNER ■ KLUTH

United States Patent Application

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled: **SPARSE CHANNEL ESTIMATION FOR ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED SIGNALS.**

The specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with 37 C.F.R. § 1.56 (attached hereto). I also acknowledge my duty to disclose all information known to be material to patentability which became available between a filing date of a prior application and the national or PCT international filing date in the event this is a Continuation-In-Part application in accordance with 37 C.F.R. §1.63(e).

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on the basis of which priority is claimed:

No such claim for priority is being made at this time.

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

No such claim for priority is being made at this time.

I hereby claim the benefit under 35 U.S.C. § 120 or 365(c) of any United States and PCT international application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose material information as defined in 37 C.F.R. § 1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

No such claim for priority is being made at this time.

I hereby appoint the following attorney(s) and/or patent agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith:

Aldous, Alan K.	Reg. No. 31,905	Jackson Huchsch, Katharine A.	Reg. No. 47,670	Perdok, Monique M.	Reg. No. 42,989
Anglin, J. Michael	Reg. No. 24,916	Jurkovich, Patti J.	Reg. No. 44,813	Peterson, David C.	Reg. No. 47,857
Arora, Suneel	Reg. No. 42,267	Kacvinsky, John	Reg. No. 40,040	Prout, William F.	Reg. No. 33,995
Beckman, Marvin L.	Reg. No. 38,377	Kalis, Jana L.	Reg. No. 37,650	Reynolds, Thomas C.	Reg. No. 32,488
Bianchi, Timothy E.	Reg. No. 39,610	Kalson, Seth Z.	Reg. No. 40,670	Schumm, Sherry W.	Reg. No. 39,422
Billion, Richard E.	Reg. No. 32,836	Kaplan, David J.	Reg. No. 41,105	Schwegman, Micheal L.	Reg. No. 25,816
Black, David W.	Reg. No. 42,331	Klima-Silberg, Catherine L.	Reg. No. 40,052	Scott, John C.	Reg. No. 38,613
Brake, R. Edward	Reg. No. 37,784	Kluth, Daniel J.	Reg. No. 32,146	Seddon, Kenneth M.	Reg. No. 43,105
Brennan, Leonide M.	Reg. No. 35,832	Lacy, Rodney L.	Reg. No. 41,136	Seeley, Mark	Reg. No. 32,299
Brennan, Thomas F.	Reg. No. 35,075	Lam, Peter	Reg. No. 44,855	Skabrat, Steven P.	Reg. No. 36,279
Brooks, Edward J., III	Reg. No. 40,925	Lemaire, Charles A.	Reg. No. 36,198	Skaist, Howard A.	Reg. No. 36,008
Burge, Ben	Reg. No. 42,372	LeMoine, Dana B.	Reg. No. 40,062	Smith, Michael G.	Reg. No. 45,368
Chadwick, Robin A.	Reg. No. 36,477	Lundberg, Steven W.	Reg. No. 30,568	Speier, Gary J.	Reg. No. 45,458
Clark, Barbara J.	Reg. No. 38,107	Maki, Peter C.	Reg. No. 42,832	Steffey, Charles E.	Reg. No. 25,179
Clise, Timothy B.	Reg. No. 40,957	Malen, Peter L.	Reg. No. 44,894	Stewart, Steven C.	Reg. No. 33,555
Dahl, John M.	Reg. No. 44,639	Mates, Robert E.	Reg. No. 35,271	Stordal, Leif T.	Reg. No. 46,251
Dracger, Jeffrey S.	Reg. No. 41,000	McCrackin, Ann M.	Reg. No. 42,858	Su, Gene I.	Reg. No. 45,140
Drake, Eduardo E.	Reg. No. 40,594	Mirho, Charles A.	Reg. No. 41,199	Terry, Kathleen R.	Reg. No. 31,884
Embreton, Janet E.	Reg. No. 39,665	Moore, Charles L., Jr.	Reg. No. 33,742	Tong, Viet V.	Reg. No. 45,416
Faatz, Cynthia Thomas	Reg. No. 39,973	Nagy, Paul	Reg. No. 37,896	Viksnins, Ann S.	Reg. No. 37,748
Fordenbacher, Paul J.	Reg. No. 42,546	Nama, Kash	Reg. No. 44,255	Wells, Calvin E.	Reg. No. 43,256
Forrest, Bradley A.	Reg. No. 30,837	Nelson, Albin J.	Reg. No. 28,650	Werner, Raymond J.	Reg. No. 34,752
Gamon, Owen J.	Reg. No. 36,143	Nielsen, Walter W.	Reg. No. 25,539	Winkle, Robert G.	Reg. No. 37,474
Gortych, Joseph E.	Reg. No. 41,791	Novakoski, Leo V.	Reg. No. 37,198	Woessner, Warren D.	Reg. No. 30,440
Greaves, John N.	Reg. No. 40,362	Pady, Danny J.	Reg. No. 35,635	Wong, Sharon	Reg. No. 37,760
Haack, John L.	Reg. No. 36,154	Park, Ellen	Reg. No. 34,055	Yates, Steven D.	Reg. No. 42,242
Harris, Robert J.	Reg. No. 37,346	Parker, J. Kevin	Reg. No. 33,024	Young, Charles K.	Reg. No. 39,435
Hill, Stanley K.	Reg. No. 37,548				

I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/organization/who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct Schwegman, Lundberg, Woessner & Kluth, P.A. to the contrary.

Please direct all correspondence in this case to Schwegman, Lundberg, Woessner & Kluth, P.A. at the address indicated below:

P.O. Box 2938, Minneapolis, MN 55402
Telephone No. (612)373-6900

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of sole inventor: Eric A. Jacobsen
Citizenship: United States of America
Post Office Address: 10539 E. Salt Bush Drive
Scottsdale, AZ 85259

Residence: Scottsdale, AZ

Signature: _____

Eric A. Jacobsen

Date: 5/10/01

Full Name of inventor:
Citizenship:
Post Office Address:

Residence:

Signature: _____

Date: _____

§ 1.56 Duty to disclose information material to patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.